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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,193	11/17/2003	Steve Carl Jamieson Parker	245389US2CRL	9573

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EXAMINER

NGUYEN, LEE

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/713,193		PARKER, STEVE CARL JAMIESON	
	<b>Examiner</b>		<b>Art Unit</b>	
	LEE NGUYEN		2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,11 and 13-17 is/are allowed.
- 6) ☒ Claim(s) 1-4,7-9,12,18-21 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 5,6,22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The IDS filed 4/26/2004 has been partially considered and recorded in the file. However, Documents DE 4313395 and WO 02/13310 fail to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7-9, 12, 18-21, and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiang et al. (US 2002/0158798).

Regarding claim 1, Chiang teaches a transceiver comprising: an antenna array 130 having a plurality of antennas (fig. 3); and a scattering structure 262 associated with the antennas for receiving the signals from the antennas (figs. 3, 5, 12).

Regarding claim 2, Chiang also teaches that the scattering structure is a passive structure (integrated 262, 200, para [0052]).

Regarding claim 3, Chiang also teaches that the scattering property of the scattering structure can be externally adjusted (see [0034]).

Regarding claim 4, Chiang inherently comprising a controller for controlling the scattering structure (electronic scanning and switching, see [0034] and [0052]).

Regarding claim 7, Chiang fails to teach that the scattering structure scatters the incident signals by at least one of diffraction, reflection or refraction or use of a waveguide (see [0034]).

Regarding claim 8, Chiang also teaches that the scattering structure is a diffraction grating (see radiates in all direction [0047]).

Regarding claim 9, Chiang further teaches that the scattering structure comprises one

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or more scattering elements, each associated with one or more of said antennas (figs. 9, 12).

Regarding claim 12, Chiang also teaches a communication system including a transceiver according to claim 1 (see para [0016]).

Regarding claim 18, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 19, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 20, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 21, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 24, the claim is interpreted and rejected for the same reason as set forth in claim 7.

Regarding claim 25, the claim is interpreted and rejected for the same reason as set forth in claim 8.

Regarding claim 26, the claim is interpreted and rejected for the same reason as set forth in claim 9.

***Allowable Subject Matter***

Claims 5-6, 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 5, the prior art of record fails to teach that the controller controls the scattering structure to modify the eigenmodes formed between the transceiver and a receiver.

Regarding claim 6, the prior art of record fails to teach that the controller receives feedback information from the receiver and uses the feedback information for controlling the scattering structure.

Regarding claim 22, the prior art of record fails to teach that the controller controls the scattering structure to modify the eigenmodes formed between the transceiver and a transmitter.

Regarding claim 23, the prior art of record fails to teach that the controller analyses the

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received signal and uses the information for controlling the scattering structure.

Claims 10-11, 13-17 are allowed.

Regarding claim 10, the prior art of record fails to teach feed back means for generating feedback information about the properties of the signals received by the antenna array; and transmission means for sending said feedback information to said second transceiver for adjusting said scattering structure.

Regarding claim 11, the prior art of record fails to teach feed-back means for generating feedback information about the properties of the signals received by the first transceiver antenna array; and transmission means for sending said feedback information to said second transceiver for adjusting said scattering structure.


Regarding claim 13, the prior art of record fails to teach interposing a scattering structure between the antennas and a receiver to scatter the beams produced by the antennas, receiving feedback information concerning the strength of the eigenmodes established between the antennas and a receiver; and adjusting the scattering structure to vary the scattering of the beams produced by the antennas.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LEE NGUYEN whose telephone number is 571-272-7854. The examiner can normally be reached on FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDERSON D. MATTHEW can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
LEE NGUYEN  
PRIMARY EXAMINER